

Title (en)

METHOD AND SYSTEM FOR PURIFYING BIOGAS FOR EXTRACTING METHANE

Title (de)

VERFAHREN UND ANLAGE ZUR REINIGUNG VON BIOGAS ZUR GEWINNUNG VON METHAN

Title (fr)

PROCÉDÉ ET INSTALLATION DE PURIFICATION DE BIOGAZ POUR LA RÉCUPÉRATION DE MÉTHANE

Publication

EP 2288425 B1 20111109 (DE)

Application

EP 09757188 A 20090522

Priority

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Abstract (en)

[origin: US2012097027A1] A method for extracting methane purifies a biogas and components present in the biogas, such as carbon dioxide, sulfur compounds, and ammoniac are separated in a plurality of different process steps. The method for extracting methane is characterized by low energy consumption and allows an increase in methane content of at least 10%. In a first purifying step, carbon dioxide, hydrogen sulfide, ammoniac, and other water-soluble organic substances present in the raw gas are removed in a washing column at a standard pressure or at overpressure of up to 6 bar by use of fresh water. The methane gas having a methane content of at least 65% is drawn off at the head of the washing column. Methane and carbon dioxide dissolved in the wash water are sequentially separated from the contaminated wash water discharged from the washing stage, in a first stripping column and subsequently in a second stripping column, by adding stripping air under standard pressure. An oxygenic stripping gas having fuel gas quality arises in the first stripping stage. The purified wash water accruing in the second stripping stage is returned to the washing stage.

IPC 8 full level

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